

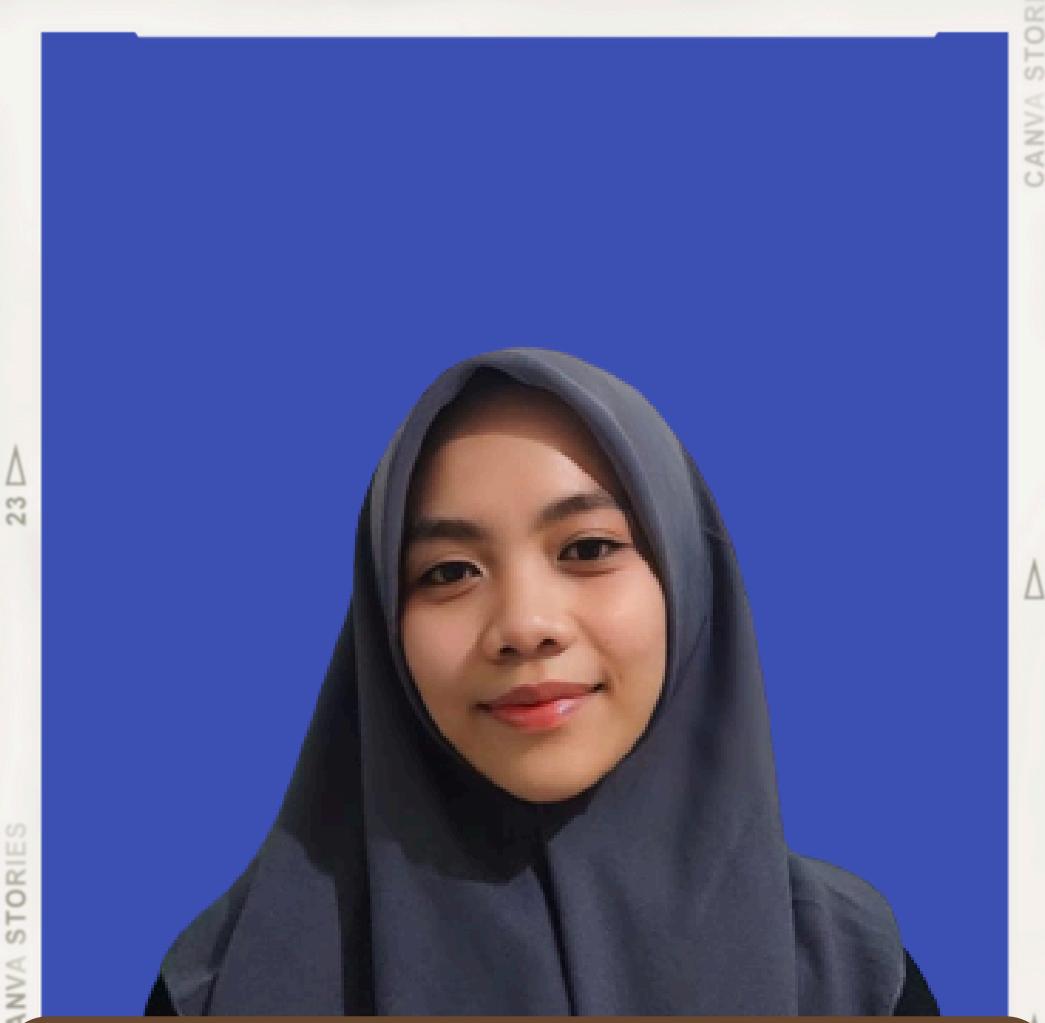
Kelompok 1B



Analysis of Cognitive Ability Test Performance on the Exam.inate Platform

1

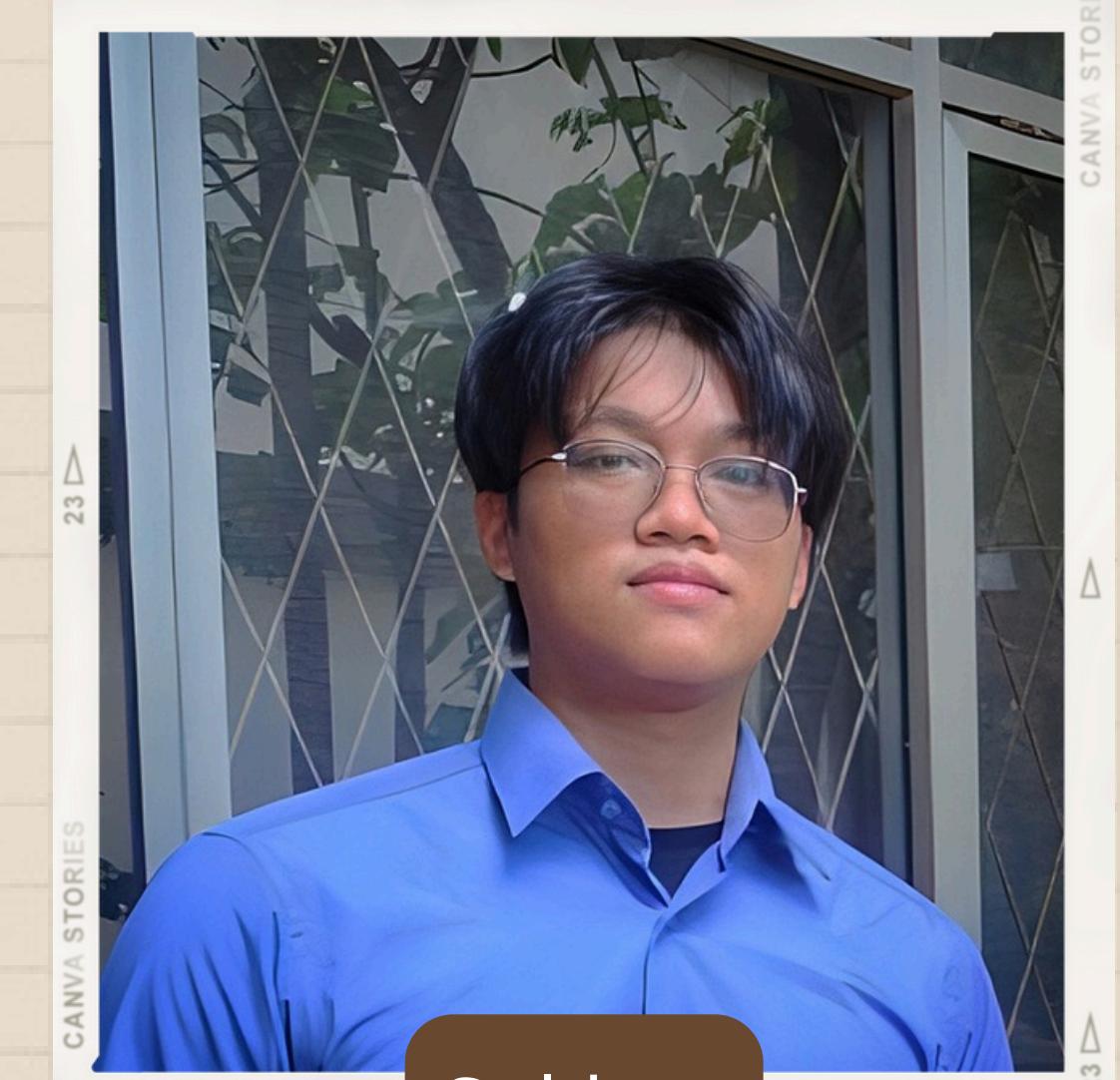
The team



Siti Nur Rohmantul Ummah



Chico Benito C



Sulthan



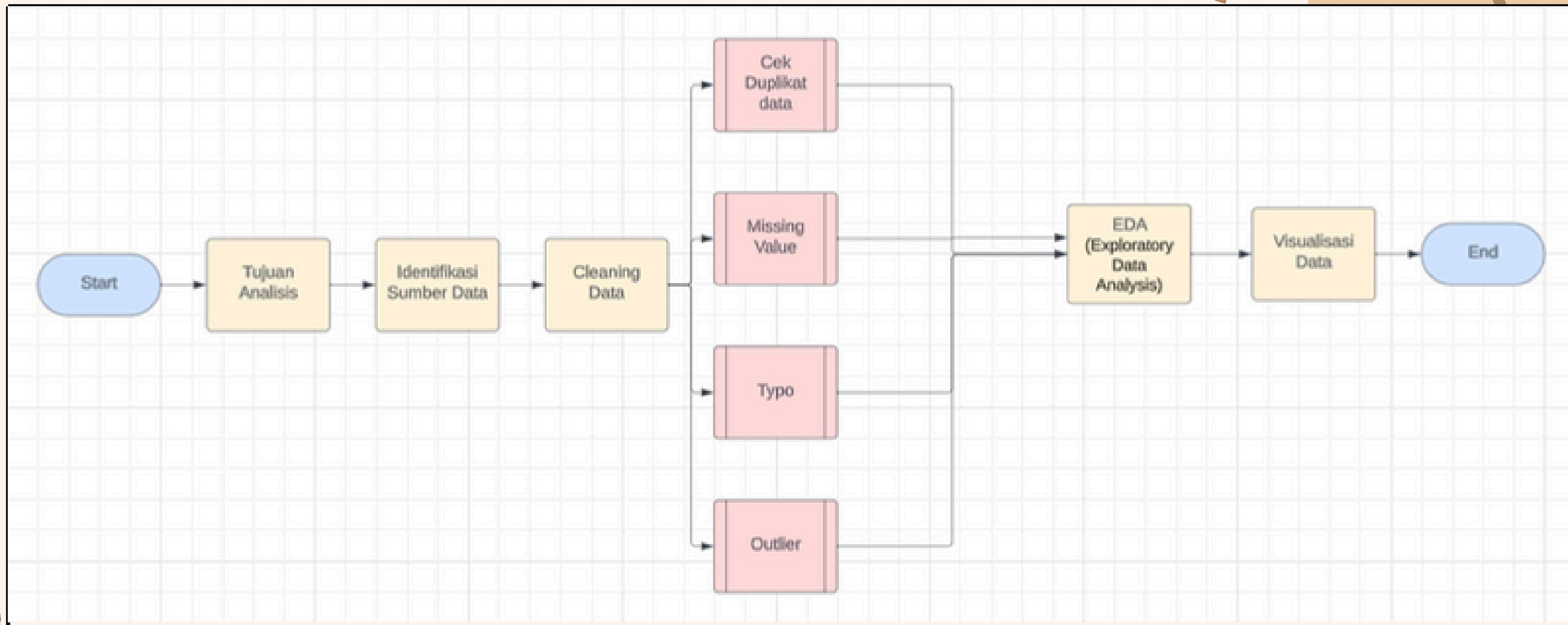
LIST OF CONTENTS

- 4 BACKGROUND**
- 5 PROJECT WORKFLOW**
- 6 BUSINESS PROBLEMS**
- 11 OVERVIEW**
- 12 MAIN INSIGHT**
- 15 EXECUTIVE SUMMARY**
- 17 CONCLUSION**
- 18 APPENDIX**

BACKGROUND

- Exam.inate, the online assessment platform of Universitas Bangun Bangsa.
- Provides five types of tests tailored to faculty needs.
- Information on test completion rates is crucial for determining the number of admitted students and the cost of using Exam.inate.
- The average test completion duration is also monitored to ensure alignment with the difficulty level.

PROJECT WORKFLOW



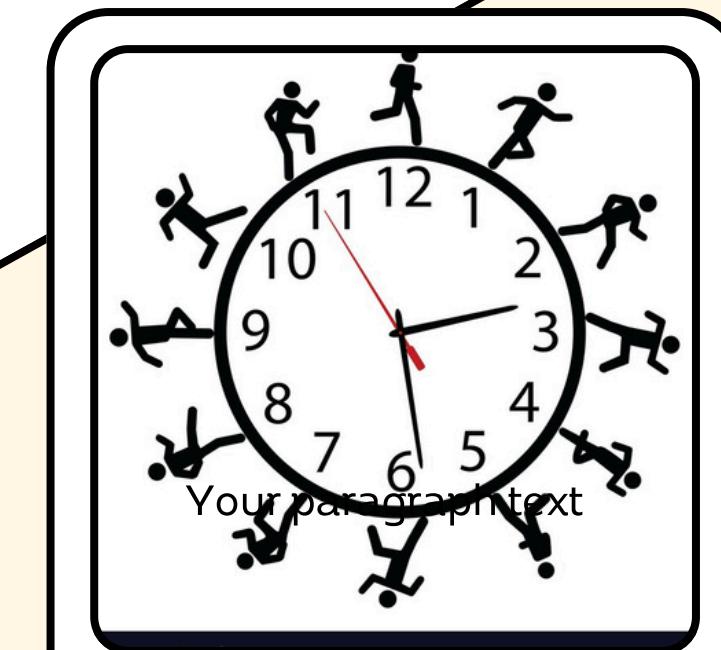
Business Problems



Cleaning Data



Completion Rate



Time Preference



Correlation



Recommendation

CLEANING DATA

Duplicate

55 rows

DELETE

Missing Value

Timestamp_log

Median

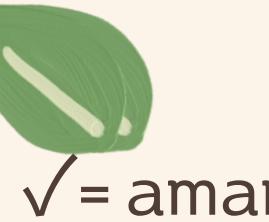
Pesan_Log

Mode

7

00100001001100
00110010000000
100100001001100
100100001001100
000110010000000
100100001001100

CLEANING DATA



Column

Typo

Impossible Value

Capital

Space

ujian_dimulai

✓

✓

✓

✓

ujian_ditutup

✓

✓

✓

✓

jenis_tes

✓

✓

✓

✓

timestamp_log

✓

✓

✓

✓

pesan_log

✓

✓

✓

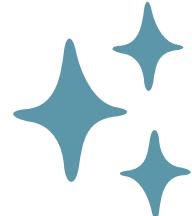
✓

CLEANING DATA



But,

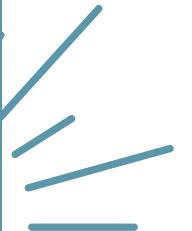
ujian_ditutup
column



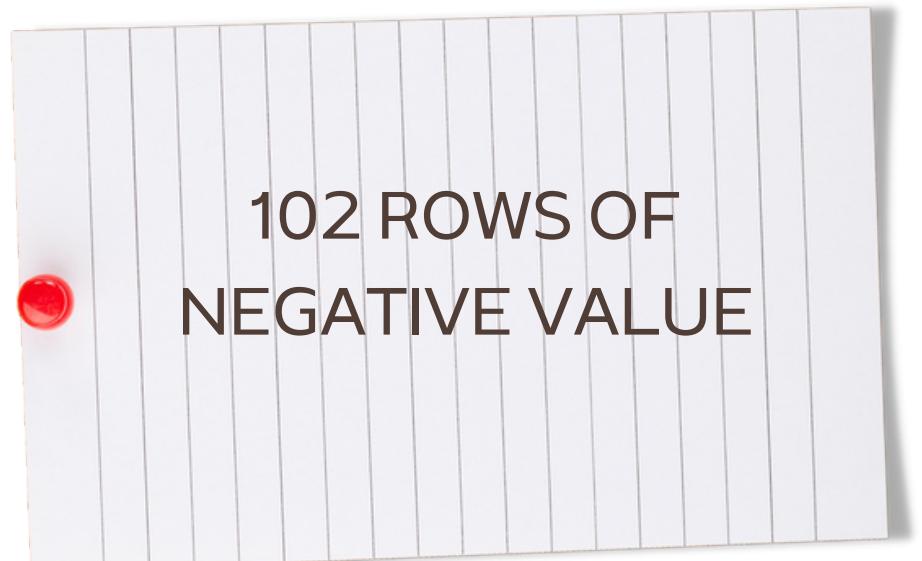
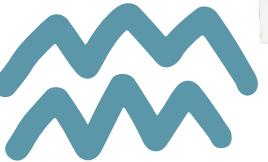
ujian_dimulai
column



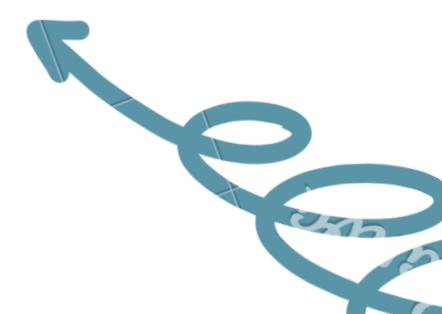
durasi_tes
column



durasi_tes
column



9



OUTLIER :

durasi_tes
column



1081
ROW

ujian_dimulai
column

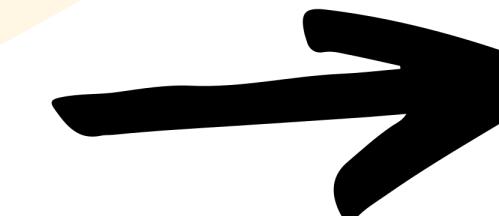


293
ROW

ujian_ditutup
column



254
ROW



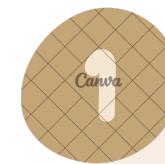
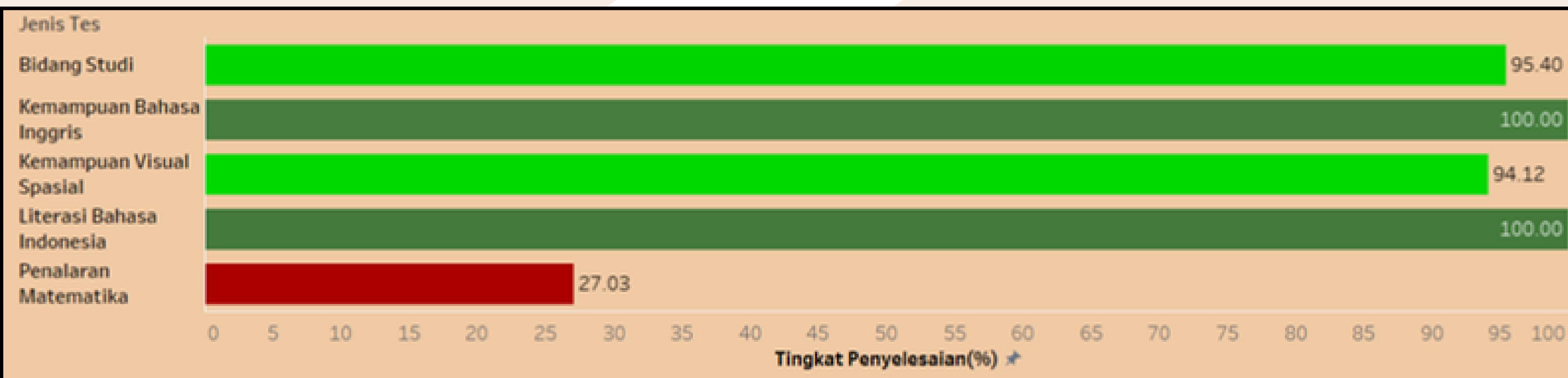
OVERVIEW

1. Completion Rate :
• In general, the "Completion Rate" falls into the high category at 83.91%.
• The "Completion Rate" for the "Mathematical Reasoning" test is very low, at 27.03%.

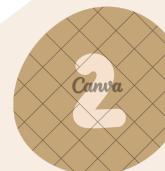
2. Time Preference :
• The time preference for test completion stands out in only one specific period, with approximately 54.41% of students choosing that time.

3. The Impact of the Number of Tests on the Completion Rate :
• The "Number of Test Sections" does not have a significant impact on the "Completion Rate."

2. Completion Rate



The average "Completion Rate" is 83.91%.

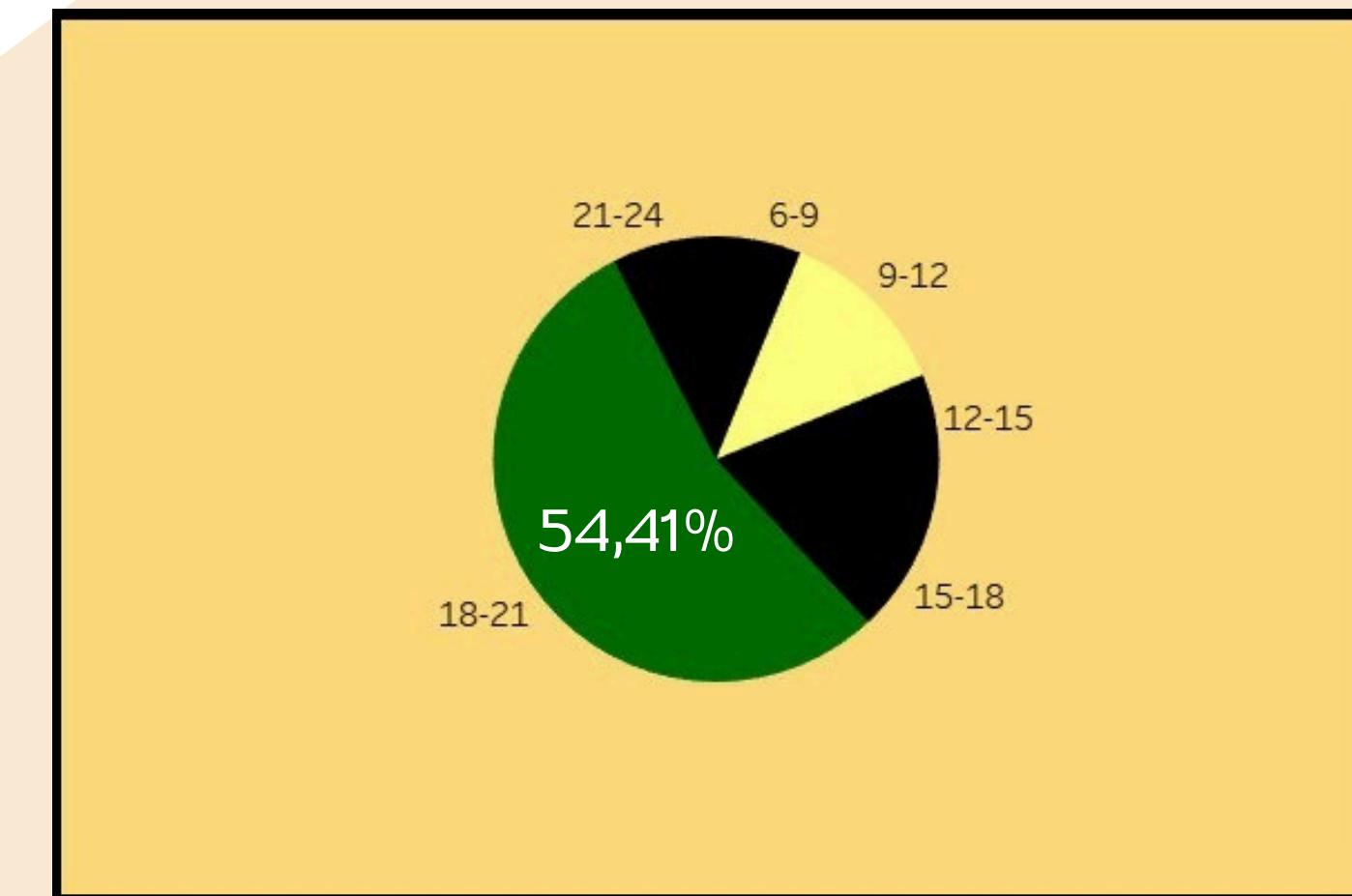
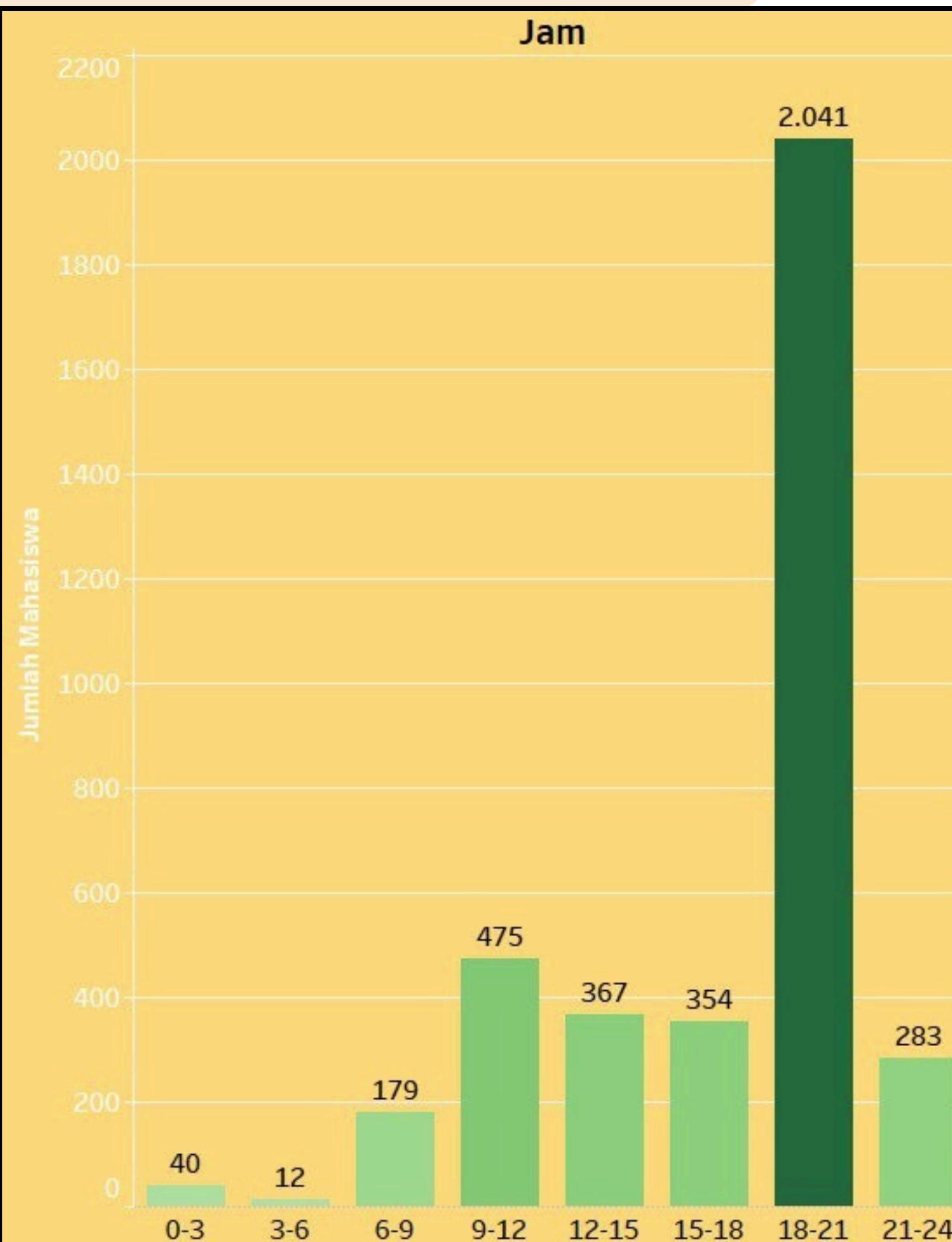


The "Completion Rate" is PERFECT for the "English Proficiency" and "Indonesian Literacy" tests.



The lowest "Completion Rate" is for "Mathematical Reasoning."

3. Time Preference

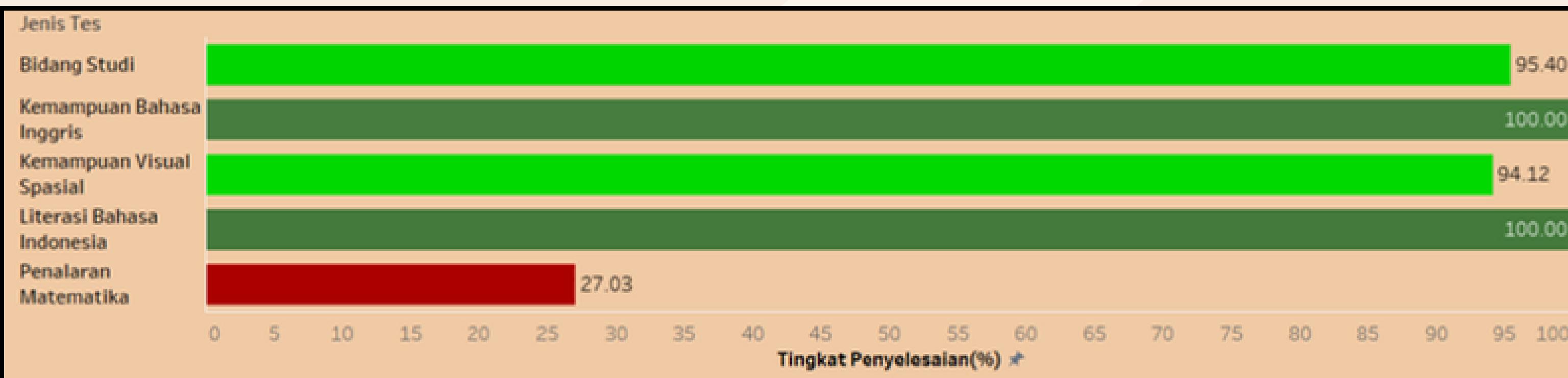


Early morning hours are not the primary choice for taking the exam.

The majority of students start the exam at 9 AM and continue until the end of the day.

The majority of students take the exam during the 18:00 - 21:00 period.

4. Impact of the Number of Test Sections on Completion Rate



NUMBER OF TEST SECTIONS

	NUMBER OF TEST SECTIONS
Bidang Studi	1
Kemampuan Bahasa Inggris	7
Kemampuan Visual Spasial	1
Literasi Bahasa Indonesia	6
Penalaran Matematika	1

Correlation

Tingkat Penyelesaian - Jumlah Bagian Tes

0.4793



Tests with a perfect "Completion Rate" have more than one test section.



The "**Mathematical Reasoning Test**", which has a low "Completion Rate", ONLY has one (1) test section.



However, there are also tests with a high completion rate that ONLY have one test section.



p-value > 0.05

EXECUTIVE SUMMARY

Completion Rate

On average, the test series shows a high completion rate, with English Proficiency and Indonesian Literacy reaching the peak completion rate (**100%**). However, Mathematical Reasoning Test has a very low completion rate (**27.03%**).

Impact of the Number of Test Sections on Completion Rate

Analysis of the data visualization shows that although test types with a perfect "Completion Rate" tend to have multiple test sections, tests with only one (1) section exhibit varied completion rates. This finding is further supported by a **p-value of 0.4793** from the statistical test. Therefore, it is concluded that the "Number of Test Sections" does not significantly impact the "Completion Rate."

Day and Time of Test Completion

Analysis of test-taking time preferences highlights a peak participation period from **18:00 - 21:00**, with 2,041 participants, indicating a strong preference for this time slot.

RECOMMENDATION

1. Evaluate time slot optimization to enhance test-taking efficiency.
2. Focus on improving the Mathematical Reasoning Test to increase the completion rate.
3. Consider diversifying the number of test sections to enhance flexibility and effectiveness.
4. Since the "Number of Test Sections" has no significant impact, it is necessary to explore other variables that may influence the "Completion Rate."

CONCLUSION

Chico Benito C

Email :

chico.benito061101@gmail.com

Linkedin : [Click Here](#)

Siti Nur Rohmatul Ummah

Email :

sitinurrohmatulummah3@gmail.com

Linkedin : [Click Here](#)

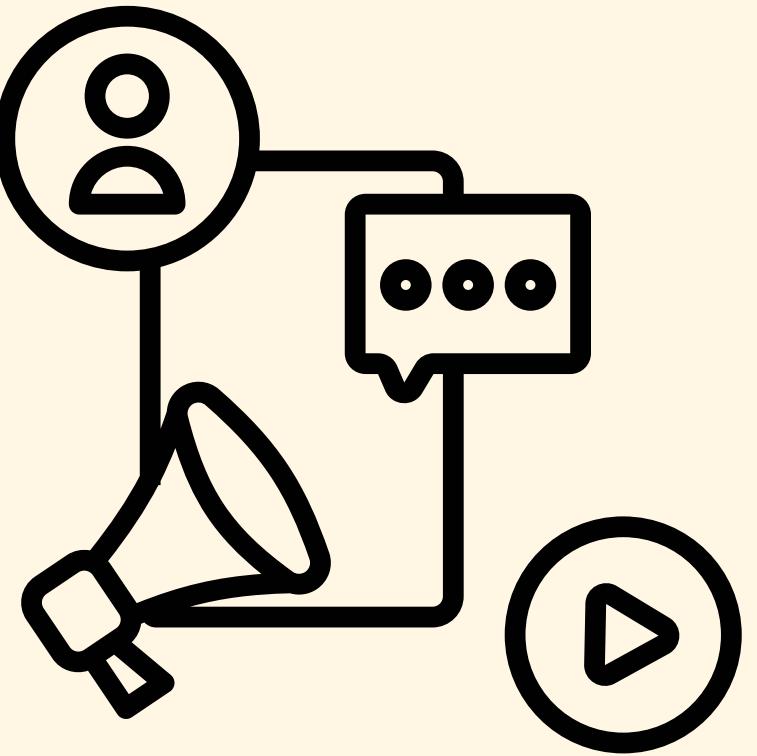
Sulthan

Email :

sulthan052002@gmail.com

Linkedin : [Click Here](#)

APPENDIX



GOOGLE COLAB

Added Data

DASHBOARD

Data Source